

U.S. Patent Application No. 09/630,121
Amendment dated July 26, 2006
Reply to Final Office Action dated July 26, 2005

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REMARKS/ARGUMENTS

Reconsideration and continued examination of the above-identified application are respectfully requested.

In the amendment, claims 12, 15, 16, 18, 19, 31, 38, 47, 51, and 53 have been amended and claims 8, 9, 13, 14, 17, and 37 have been canceled. New claims 55-60 have been added. The amendments to claims 31, 47, 51, and 53 incorporate various subject matters set forth in claims 9, 12, 14, 17, and 37. Furthermore, the claims further recite that the core has a particular surface tension and support for this aspect of the claim amendment can be found, for instance, at page 29, lines 29-35 of the present application. The remaining amendments to the dependent claims are to make these claims consistent with the amendments to the independent claims. Accordingly, no questions of new matter should arise and entry of this amendment is respectfully requested.

Substance of Interview with Examiner

The undersigned and the applicants appreciate the personal interview with Examiner Watkins on July 10, 2006. In the interview, the various rejections of the claims were discussed, and the applicants pointed out differences between the claimed invention and the cited art.

Rejection of claims 7-21, 31-33, 37-40, and 42-54 under 35 U.S.C. §103(a) over Nelson in view of Nishibori '138, Graham, and further in view of Andres (U.S. Patent No. 5,553,427).

At page 2 of the Office Action, the Examiner rejects claims 7-21, 31-33, 37-40, and 42-54 under 35 U.S.C. §103(a) as being unpatentable over Nelson (U.S. Patent No. 6,324,809 B1), in view of Nishibori '138 (U.S. Patent No. 5,869,138), Graham (U.S. Patent No. 4,849,768), and further in view of Andres (U.S. Patent No. 5,553,427). With respect to Nelson, Nishibori '138,

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and Andres, the Examiner, for the most part, repeats the arguments set forth in the Office Action dated October 20, 2003.

With respect to the applicants' previous argument that the references do not teach or suggest a digitally printed design on the top surface of the plank, the Examiner alleges that Graham describes the use of a digital printing system to form a realistic wood grain appearance. Thus, the Examiner takes the position that it would have been obvious to print directly on the plank of Nelson to provide a realistic wood grain appearance and to save the expense of constructing an overlay. For the following reasons, this rejection is respectfully traversed.

The cited references alone or combined do not teach the thermoplastic plank or floor covering of the claims as currently recited. None of the references alone or combined would teach or suggest a thermoplastic plank having a digital printed design on the top surface of the core and a protective layer on the digital printed design, wherein the core contains a thermoplastic resin, at least one processing aid, at least one impact modifier, at least one lubricant, at least one stabilizer, and at least one plasticizer. In addition, the particular dimensions recited in the claims, as well as the presence of a series of parallel cavities separated by the thermoplastic material, along with a core having at least one groove located on a side of the core is not shown or suggested in the references, alone or combined. Furthermore, the references alone or combined do not teach or suggest a core having the desirable surface tension of at least 34 dynes/cm.

The arguments set forth in Applicants' response of April 13, 2005 are incorporated herein. Further, Nelson relates to a core for use in laminate floorings, which does not include a digital printed design on the top surface of the core, as recited in claims 31, 47, 51, and 53 of the

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present application. Nelson requires a laminate on the top and on the bottom of the core. Nelson also describes the use of a decorative laminate on top of a core. Nelson does not teach or suggest a protective layer affixed to the top surface of the printed layer and does not teach or suggest a digital printed layer that is printed on the top surface of the core. A laminate on the top or the bottom of the core is not the same or equivalent to having a digital printed design on the top surface of the core.

Also, Nishibori '138 relates to a method for forming a pattern on a synthetic wood board. The cores of Nelson and Nishibori '138 are different from one another. One skilled in the art would not substitute different cores and expect the same outcome. According to columns 7 and 8 of Nishibori '138, wood grain patterns are directly printed by role print or flexographic printing on the surface on which a blurred wooden grain pattern is formed by the sanding process. Nelson does not provide any option to remove the laminate layer and one cannot simply substitute Nishibori '138 for Nelson's layer. The two structures are different. Even if one skilled in the art would substitute the laminated core of Nelson with the role print or flexographic printing of Nishibori '138, at best, the combination of the two references would produce wood grain patterns printed by role print or flexographic printing on both the upper surface and the lower surface of the central core. The combination of Nelson and Nishibori '138 still would not teach or suggest a digital printed design on the top surface of the core as recited in claims 31, 37, 51, and 53 of the present application. Digital printing is quite different from role or flexographic printing.

Andres relates to a completely different design from the flooring of the claimed invention. Andres is directed to a plastic extrusion that does not have a base layer. Also, Andres is not directed to forming a decorative print on a surface. Furthermore, the extrusion of Andres is fixed

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to a subfloor and is not a floating surface as set forth in claim 47 of the present application. Moreover, Andres does not cure the deficiencies of Nelson or Nishibori '138 with regard to thermal treatment of the core or a digital printed design directly on the top surface of the plank.

Graham does not teach or suggest digital printing on the type of core described in any of the cited references, and the core of the claimed invention is different as indicated above.

Thus, Nelson, in view of Nishibori '138, Andres, and Graham, does not teach or suggest the subject matter of claims 7-21, 31-33, 37-40, and 42-54. Accordingly, the rejection under 35 U.S.C. §103(a) should be withdrawn.

Rejection of claims 31, 7, 10, 11, 12, 33, 32, 47, 51 and 53 under 35 U.S.C. §103(a) over Nishibori '138, in view of Graham

At page 4 of the Office Action, the Examiner rejects claims 31, 7, 10, 11, 12, 33, 32, 47, 51 and 53 under 35 U.S.C. §103(a) as being unpatentable over Nishibori '138, in view of Graham. With respect to Nishibori '138, the Examiner, for the most part, repeats the reasons for rejecting the claimed invention over Nishibori '138 from the Office Action dated October 20, 2003. The Examiner then alleges that Graham describes the use of a digital printing system to form a realistic wood grain pattern. Therefore, the Examiner concludes that it would have been obvious to one of ordinary skill in the art to have used a digital wood grain printed pattern on the plank of Nishibori '138 in view of Graham in order to have a more realistic pattern. For the following reasons, this rejection is respectfully traversed.

The cited references alone or combined do not teach the thermoplastic plank or floor covering of the claims as currently recited. None of the references alone or combined would teach or suggest a thermoplastic plank having a digital printed design on the top surface of the

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core and a protective layer on the digital printed design, wherein the core contains a thermoplastic resin, at least one processing aid, at least one impact modifier, at least one lubricant, at least one stabilizer, and at least one plasticizer. In addition, the particular dimensions recited in the claims, as well as the presence of a series of parallel cavities separated by the thermoplastic material, along with a core having at least one groove located on a side of the core is not shown or suggested in the references, alone or combined. Furthermore, the references alone or combined do not teach or suggest a core having the desirable surface tension of at least 34 dynes/cm.

As discussed above, Graham does not teach or suggest digital printing on a core as recited in the claimed invention.

Furthermore, with respect to claim 53, in addition to the arguments set forth above, the wood board of Nishibori '138 or Graham is not thermally treated.

Thus, Nishibori '138 in view of Graham, does not teach or suggest the subject matter of claims 31, 7, 10, 11, 12, 33, 32, 47, 51 and 53. Accordingly, the rejection under 35 U.S.C. §103(a) should be withdrawn.

Rejection of claim 53 under 35 U.S.C. 103(a) over Nishibori '138, in view of Nishibori '900 and further in view of Graham

At page 5 of the Office Action, the Examiner rejects claim 53 under 35 U.S.C. 103(a) as being unpatentable over Nishibori '138, in view of Nishibori '900 (U.S. Patent No. 4,610,900), and further in view of Graham. With respect to Nishibori '138 and Nishibori '900, the Examiner provides the same reasoning for rejecting claim 53 as in the previous Office Action dated October 20, 2003. Additionally, the Examiner alleges that it would have been obvious to use a

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digital pattern as the wood grain of Nishibori '138 in view of Nishibori '900 in order to have a more realistic pattern. For the following reasons, this rejection is respectfully traversed.

The cited references alone or combined do not teach the thermoplastic plank or floor covering of the claims as currently recited. None of the references alone or combined would teach or suggest a thermoplastic plank having a digital printed design on the top surface of the core and a protective layer on the digital printed design, wherein the core contains a thermoplastic resin, at least one processing aid, at least one impact modifier, at least one lubricant, at least one stabilizer, and at least one plasticizer. In addition, the particular dimensions recited in the claims, as well as the presence of a series of parallel cavities separated by the thermoplastic material, along with a core having at least one groove located on a side of the core is not shown or suggested in the references, alone or combined. Furthermore, the references alone or combined do not teach or suggest a core having the desirable surface tension of at least 34 dynes/cm.

For the reasons previously provided above regarding these references, these references would not teach or suggest the claimed invention.

In addition, the comments previously provided in the Request for Reconsideration filed April 13, 2005 apply to each of the above rejections.

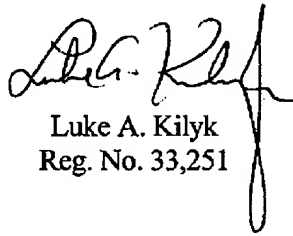
CONCLUSION

In view of the foregoing remarks, the applicants respectfully request the reconsideration of this application and the timely allowance of the pending claims.

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If there are any other fees due in connection with the filing of this response, please charge the fees to Deposit Account No. 50-0925. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such extension is requested and should also be charged to said Deposit Account.

Respectfully submitted,



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